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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
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TECKLU, ISAAC TUKU

ART UNIT	PAPER NUMBER
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2192

MAIL DATE	DELIVERY MODE
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07/20/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/611,558

**Applicant(s)**

ZILAVY, DANIEL V.

**Examiner**

ISAAC T. TECKLU

**Art Unit**

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 and 42-66 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-29 and 42-66 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is responsive to the appeal brief filed on 04/21/2009.
2. In view of the appeal brief filed on 04/21/2009, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options.

1. file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final).
2. initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.
3. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-29 and 42-66 have been considered but are moot in view of the new ground(s) of rejection.

Argument:

“The appellant contends that Sprecher discloses checking compatibility for replaced unit with the previously installed unit. Claim 1, on the other hand, is directed to checking compatibility of a field replaceable unit with other units presently installed in a computer system.” (Brief, page 11-2).

Response:

The examiner would like to indicate that Sprecher discloses compatibility for replaced unit with a unit not previously installed in the computer system. Nevertheless, Powers et al., new art of record teaches checking compatibility for replaced unit with the previously installed unit. See rejection below.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-29 and 42-66 are rejected under 35 U.S.C. 102(e) as being unpatentable over Sprecher et al. (US 6,948,059 B1) in view of Powers et al. (US 2004/0199899 A1).

Per claim 1 (Currently amended), Sprecher discloses in a computer system including a first field-programmable unit (FPU) of a first type, the first FPU including first field-programmable unite code, a second FPU of second type including a second FPU code (see at least col.3:40-50, col.5:1-65, col.8:1-10 and col.5:25-45 and e.g. FIG. 4, and col.6:20-67, Available Resource Table 54 and related text), a computer-implemented method comprising steps of:

(A) determining whether the first FPU and first FPU code are compatible with the second FPU and second FPU code; (e.g. FIG. 3, Software Resource 42 as the second type;

Software Resource 42 is different from the first type as the new software component 44 and e.g. FIG. 5, step 52 – “Review available component table” – and related text, e.g. col.5: 25-35, 30-45 and col. 7: 5-12); and

(B) if the first FPU and first FPU code are determined not to be compatible with the second FPU and second FPU code, notifying a user of the computer system of the incompatibility (e.g. FIG. 5, steps 72 and 92 – “Search” and “Update available component table” – and related text col. 7:40-50 “... user is given information as to the type, identifier and version number of the desired ...” see also col.7:20-68, block 66 Hit? No, block 72 Search,... block 84 Compatible? No... Done and related text).

Sprecher substantially discloses the invention as claimed. However, Sprecher does not explicitly disclose checking compatibility of a field replaceable unit with other units presently installed in a computer system. Nevertheless, as evidenced by the teaching of Powers et al., new art of record, it was well known to compatibility of a field replaceable unit with other units presently installed in a computer system (see at least e.g. FIG. 5, DISCOVER COMPONENTS ON SYSTEM 501, ACCESS COMPATIBILITY STRUCTURE 503 and DISCOVERED MIX OF COMPONENTS COMPATIBLE? 504 and related text). Thus, it is respectfully submitted that it would have been obvious to one skilled in the art at the time the invention was made to check compatibility of a field replaceable unit with other units presently installed in a computer system in order to verify the components are compatible during boot-up of the system to prevent any malfunctioning if it is determined incompatibility existed as once suggested by Powers (paragraph [0003]).

Per claim 2 (Currently Amended), Sprecher discloses the method of claim 1, wherein the computer system further comprises a plurality of field-programmable units including a

corresponding plurality of FPU codes (e.g. FIG. 5 and related text), and wherein the step (A) comprises a step of:

(A) (1) determining whether the first FPU code is compatible with at least one of the plurality of FPU codes (e.g. FIG. 5, steps 80-86 and col.7:20-67, block 66 Hit? NO, block 72 Search, block 84 Compatible? NO, block 76 Done? NO, block 72 continue Search and related text).

Per claim 3, Sprecher discloses the method of claim 2, wherein the computer system further comprises a plurality of field-replaceable units, and wherein the step (A) further comprises a step of:

(A) (2) determining whether the first FPU code is compatible with the plurality of field-replaceable units (e.g. FIG. 5, step 84 and related text).

Per claim 4, Sprecher discloses the method of claim 2, wherein the computer system further comprises a revision compatibility descriptor identifying a plurality of compatible combinations of field-programmable unit codes (e.g. FIG. 3 and related text), and wherein the step (A)(1) comprises a step of determining that the first FPU code is compatible with the plurality of FPU codes if a combination of the first FPU code (e.g. FIG. 5, steps 80-86 and related text) and the plurality of FPU codes is among the plurality of compatible combinations of field-programmable unit codes identified by the revision compatibility descriptor (col. 5:19-31 "... component ... resource...").

Per claim 5, Sprecher discloses the method of claim 2, wherein the computer system further comprises a plurality of field-replaceable units and a revision compatibility descriptor identifying a

plurality of compatible combinations of field-programmable unit codes and field-replaceable units (e.g. FIG. 3 and related text), and wherein the step (A) comprises a step of determining that the first FPU code is compatible with the computer system if a combination of the first FPU code, the plurality of FPU codes (e.g. FIG. 5, steps 80-86 and related text), and the plurality of field-replaceable units is among the plurality of combination combinations of field-programmable unit codes and field-replaceable units identified by the revision compatibility descriptor (e.g. FIG. 2, items 46 and 48 –“resource list” and “compatibility list” and col. 5:19-31 “... component ... resource...”).

Per claim 6, Sprecher discloses the method of claim 1, wherein the first field-programmable unit comprises a field-replaceable unit (e.g. FIG. 2, items 46 and 48 –“resource list” and “compatibility list” and col. 5:19-31 “... component ... resource...”).

Per claim 7, Sprecher discloses the method of claim 1, wherein the step (A) is performed in response to installation of the first field-programmable unit in the computer system (e.g. FIG. 5, step 70 – “load application” – and related text, and col. 7:13-18 and col. 8:39-44).

Per claim 8, Sprecher discloses the method of claim 1, wherein the step (B) comprises a step of:

(B) (1) providing the user with information descriptive of third FPU code that is suitable for storage in the first field-programmable unit and that is compatible with the second FPU code (col. 7:40-50 “... user is given information as to the type, identifier and version number of the desired ...”).

Per claim 9, Sprecher discloses the method of claim 8, wherein the step (A) is performed in response to replacement of a third field-programmable unit with the first field-programmable unit, and wherein the third field-programmable unit includes the third FPU code (col. 3:33-38 "... replacement of resources and upgrading of those resources ...").

Per claim 10, Sprecher discloses the method of claim 8, and wherein the step (B)(1) comprises steps of:

(B) (1) (a) identifying a compatible combination of field-programmable unit codes previously installed in the computer system (e.g. FIG. 5, step 52 – "Review available component table" – and related text, e.g. col. 7: 5-12);

(B) (1) (b) identifying, in the identified combination of previously-installed field-programmable unit codes, an identifier of FPU code suitable for installation in the first field-programmable unit (col. 3:33-38 "... previously installed ..."); and

(B) (1) (c) providing the user with information descriptive of the FPU code identified by the identifier (col. 7:40-50 "... user is given information as to the type, identifier and version number of the desired ...").

Per claim 11, Sprecher discloses the method of claim 8, wherein the computer system further comprises a plurality of FPUs including a corresponding plurality of FPU codes, and a revision compatibility descriptor identifying a plurality of combinations of compatible field-programmable unit codes, and wherein the step (B)(1) comprises steps of:



(B) (1) (a) identifying, in the revision compatibility descriptor, a record describing the plurality of FPU codes (e.g. FIG. 5, step 52 – “Review available component table” – and related text, e.g. col. 7: 5-12);

(B) (1) (b) identifying, in the identified record, a code identifier identifying FPU code suitable for use in the first field-programmable unit (e.g. FIG. 3, element 37-42 and related text); and

(B) (1) (c) providing the user with information descriptive of the FPU code identified by the code identifier (col. 7:40-50 “... user is given information as to the type, identifier and version number of the desired ...”).

Per claim 12 (currently amended), this is the apparatus version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 13, this is the apparatus version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 14, this is the apparatus version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 15, this is the apparatus version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 16, this is the apparatus version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 17, this is the apparatus version of the claimed method discussed above (Claim 7), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 18, this is the storage version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 19, this is the storage version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 20, this is the storage version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 21, this is the storage version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 22, this is the storage version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 23, this is the storage version of the claimed method discussed above (Claim 6), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 24, this is another system version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 25, this is another system version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 26, this is another system version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 27, this is another system version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 28, this is another system version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 29, this is another system version of the claimed method discussed above (Claim 6), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 42, this is system version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 43, this is system version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 44, this is system version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 45, Sprecher discloses in a computer system including a first field-programmable unit (FPU) of a first type, the first FPU including first FPU code (e.g. FIG. 10B and related text), a computer-implemented method comprising steps of:

(A) determining whether the first FPU and first FPU code are compatible with a second FPU and second FPU code wherein both first FPU and the second FPU are (see at least col.3:40-50, col.5:1-65, col.8:1-10 and col.5:25-45 and e.g. FIG. 4, and col.6:20-67, Available Resource Table 54 and related text) in the computer system, wherein the second FPU includes the second FPU code, and wherein the second FPU is of a second type that differs from the first type; (e.g. FIG. 3, Software Resource 42 as the second type; Software Resource 42 is different from the first type as the new software component 44 and e.g. FIG. 5, step 52 – “Review available component table” – and related text, e.g. col.5: 25-35, 30-45 and col. 7: 5-12);

(B) if the first FPU and first FPU code are determined not to be compatible with the second FPU and second FPU code, identifying third FPU code that is compatible with the and suitable for installation in the first field-programmable unit (e.g. FIG. 5, steps 72 and 92 – “Search” and “Update available component table” – and related text col. 7:40-50 “... user is given information as to the type, identifier and version number of the desired ...” see also col.7:20-68, block 66 Hit? No, block 72 Search, ... block 84 Compatible? No... Done and related text); and

(C) installing the third FPU code in the first field-programmable unit (col. 3:33-38 “... previously installed ...”).

Sprecher substantially discloses the invention as claimed. However, Sprecher does not explicitly disclose checking compatibility of a field replaceable unit with other units presently installed in a computer system. Nevertheless, as evidenced by the teaching of Powers et al., new art of record, it was well known to compatibility of a field replaceable unit with other units presently installed in a computer system (see at least e.g. FIG. 5, DISCOVER COMPONENTS ON SYSTEM 501, ACCESS COMPATIBILITY STRUCTURE 503 and DISCOVERED MIX OF COMPONENTS COMPATIBLE? 504 and related text). Thus, it is respectfully submitted that it would have been obvious to one skilled in the art at the time the invention was made to check compatibility of a field replaceable unit with other units presently installed in a computer system in order to verify the components are compatible during boot-up of the system to prevent any malfunctioning if it is determined incompatibility existed as once suggested by Powers (paragraph [0003]).

Per claim 46, Sprecher discloses the method of claim 45, wherein the computer system further comprises a plurality of field-programmable units including a corresponding plurality of FPU codes, and wherein the step (A) comprises a step of:

(A) (1) determining whether the first FPU code is compatible with the plurality of FPU codes (col. 7:40-50 "... user is given information as to the type, identifier and version number of the desired ...").

Per claim 47, Sprecher discloses the method of claim 46, wherein the computer system further comprises a plurality of field-replaceable units, and wherein the step (A) further comprises a step of:

(A) (2) determining whether the first FPU code is compatible with the plurality of field-replaceable units (col. 7:40-50 “... user is given information as to the type, identifier and version number of the desired ...”).

Per claim 48, Sprecher discloses the method of claim 46, wherein the computer system further comprises a revision compatibility descriptor identifying a plurality of compatible combinations of field-programmable unit codes (e.g. FIG. 5 and related text), and wherein the step (A)(1) comprises a step of determining that the first FPU code is compatible with the plurality of FPU codes if a combination of the first FPU code (col. 49: 25-30 “... determined whether the new hard drive is compatible ...”) and the plurality of FPU codes is among the plurality of compatible combinations of field-programmable unit codes identified by the revision compatibility descriptor (e.g. FIG. 3 and related text).

wherein the computer system further comprises a plurality of field-replaceable units and a revision compatibility descriptor identifying a plurality of compatible combinations of field-programmable unit codes and field-replaceable units (e.g. FIG. 3 and related text), and wherein the step (A) comprises a step of determining that the first FPU code is compatible with the computer system if a combination of the first FPU code, the plurality of FPU codes (e.g. FIG. 5 and related text), and the plurality of field-replaceable units is among the plurality of combination combinations of field-programmable unit codes and field-replaceable units identified by the revision compatibility descriptor (col. 7:40-50 “... user is given information as to the type, identifier and version number of the desired ...”).

Per claim 50, Sprecher discloses the method of claim 45, wherein the first field-programmable unit comprises a field-replaceable unit (e.g. FIG. 3 and related text).

Per claim 51, Sprecher discloses the method of claim 45, wherein the step (A) is performed in response to installation of the first field-programmable unit in the computer system (e.g. FIG. 5, 92 and related text).

Per claim 52, this is the apparatus version of the claimed method discussed above (Claim 45), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 53, this is the apparatus version of the claimed method discussed above (Claim 46), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 54, this is the apparatus version of the claimed method discussed above (Claim 47), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 55, this is the apparatus version of the claimed method discussed above (Claim 48), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.



Per claim 56, this is the apparatus version of the claimed method discussed above (Claim 49), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 57, this is the storage version of the claimed method discussed above (Claim 45), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 58, this is the storage version of the claimed method discussed above (Claim 46), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 59, this is the storage version of the claimed method discussed above (Claim 47), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 60, this is the storage version of the claimed method discussed above (Claim 48), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 61, this is the storage version of the claimed method discussed above (Claim 49), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 62, this is the computer system version of the claimed method discussed above (Claim 45), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 63, this is the computer system version of the claimed method discussed above (Claim 46), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 64, this is the computer system version of the claimed method discussed above (Claim 47), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 65, this is the computer system version of the claimed method discussed above (Claim 48), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

Per claim 66, this is the computer system version of the claimed method discussed above (Claim 49), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also obvious.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAAC T. TECKLU whose telephone number is (571)272-7957. The examiner can normally be reached on M-TH 9:300A - 8:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Isaac T Tecklu/  
Examiner, Art Unit 2192

/Tuan Q. Dam/  
Supervisory Patent Examiner, Art Unit 2192